

APPENDIX “A”

City of Lincoln and Lancaster County

GIS Visioning Workshop Report

October 2 - 3

“Connecting More Than The Dots”

City of Lincoln and Lancaster County, Nebraska

GIS Visioning Workshop Report

October 2-3 2003

**“Connecting more
than the dots.”**



November 3, 2003

Mr. Kent Morgan
Assistant Director of Planning
City of Lincoln
555 South Tenth Street; Room 213
Lincoln, NE 68508

Dear Mr. Morgan:

Enclosed is a copy of the report on the GIS Visioning Workshop that was held by the City of Lincoln and Lancaster County on October 2-3, 2003. We have tried to incorporate all of the pertinent information that was captured during the activity. On behalf of Joe Eckmann and myself, we were delighted with the excellent participation and the eagerness shown by all of the workshop participants in their desire to create an enterprise GIS that services the full community of interests in Lincoln and Lancaster County. Some of the discussion and recommendations made during the workshop showed a good understanding of the path ahead.

To help you and the other workshop participants develop a series of next actions for GIS implementation, we have developed the following summary recommendations from the workshop report as well as our personal evaluation of your situation. Please keep in mind that this is not a comprehensive review of the situation, but rather a series of observations based on the workshop discussion and our experience working on successful GIS systems in other communities.

- 1) First, recognition must be given to the excellent GIS work that has already been accomplished by individual organizations in Lincoln: The City of Lincoln; Lancaster County; Lincoln Electric System; and the Lower Platte South Natural Resources District. Departments representing each of these organizations and others have developed a range of GIS databases and applications designed to meet departmental needs and requirements. Each of these departments should be commended for their leadership and commitment to improve efficiency, reduce cost and improve customer service. While the communication and willingness to assist others on a departmental basis has been outstanding, it appears that a more formal means of enterprise GIS development is needed. One of the real values of enterprise GIS systems is the ability to create data and applications once and use them many times. Without a formal mechanism for enterprise database development, multi-user access and the development of inter-departmental workflow applications designed to streamline processes and maintain core database elements, much of the potential and promise of GIS is lost.
- 2) Larry Zink, GIS Coordinator for the State of Nebraska, in his opening remarks to the workshop participants, challenged the group by saying, "You have accomplished much through early coordination and collaboration – don't forget to plan for this critical ingredient as you envision the future." Larry zeroed in on the next step required for the development of

a Lincoln / Lancaster Enterprise GIS: the creation of a more formal GIS organization structure with dedicated GIS and IT staff. This structure would provide the necessary framework for:

- (a) Establishing a formal policy and technical committees for GIS policy, technical, and budget decisions.
- (b) Development of an Enterprise GIS Master Plan for the community.
- (c) Determining GIS data standards and development of a metadata server capability as a card catalog into the communities' GIS data holdings.
- (d) Creation of a seamless geodatabase warehouse repository of core GIS database elements in a common object-relational database environment. For example, this database should house:
 - (i) A unified land base
 - (ii) Aerial photography
 - (iii) Planimetrics
 - (iv) Geodetic control
 - (v) Address framework
 - (vi) Street centerlines
 - (vii) Infrastructure inventory
 - (viii) Administrative boundaries
- (e) Developing standard geodatabase models for Land Parcels, Addressing, Transportation and Utilities.
- (f) GIS web applications for intranet and internet deployment. Development of an "Internet Index and Viewer for Shared Geographic Data", which was identified as a "small win" administrative application by group # 1, would be an excellent early application. This web portal could provide easy web and application access to all of the most current data that is available in the community. Please look at the Geospatial One-Stop (www.geodata.gov) and the Geography Network (www.geographynetwork.com) as excellent examples of this technology.
- (g) Generic GIS application development of inter-departmental applications with an emphasis on work-flow re-engineering to help streamline local operations. The Planning Department and Public Works have already begun Permitting and Asset Management initiatives that could easily be expanded to other departments. It's only through the successful implementation of such GIS applications in support of departmental mandates that the true promise of GIS will be realized by the overall community. Priorities should be established based on a basic return-on-investment analysis.

- 3) The following GIS vision statement was developed and received the majority of the votes during the workshop:

“Connecting more than the dots.”

While this vision statement recognizes the importance of GIS in organizational communications and spatial database development, it doesn't provide a clear sense of direction for Lincoln / Lancaster GIS activities. More work should be done to refine a GIS vision statement from the excellent list of candidates that would more clearly identify GIS goals and objectives.

- 4) From the results of the nominal group activity on GIS application requirements, it is recommended that workshop participants embark on the following major application and core database development activities. Each of these applications, if well designed, implemented, and managed, have the potential to provide a significant R-O-I (Return-On-Ivestment) for the community.

(1) Development of a GIS Master Plan for implementation of an enterprise GIS capability.

The plan should establish specific goals and objectives; document existing databases and applications; evaluate the accuracy, currency, and maintainability of all systems; define existing hardware and networking capabilities and areas for needed improvement; evaluate technology trends and opportunities for application and database integration; recommend technology standards and a program for work-flow reengineering; and identify and prioritize specific applications on the basis of their R-O-I (Return-On-Ivestment) to the community. An important part of the plan should also be to evaluate alternative organizational and staffing structures to support and maintain a GIS technical infrastructure. It is recommended that the GIS Master Plan be developed internally with the selective use of outside consultants.

(2) Unified Landbase Development – The number one application requirement identified by workshop participants was the integration of the City / County landbase into a seamless geodatabase. This would improve accessibility, accuracy, and would enable the landbase and associated situs address and parcel identification numbers to be maintained on a real time basis. It is recommended that a Land Records Geodatabase Model be developed to support this project. An excellent template is available at

<http://support.esri.com/index.cfm?fa=downloads.dataModels.filteredGateway&dmid=11> .

(3) Infrastructure Inventory and Database Development - Workshop participants also identified the development of a comprehensive Infrastructure Inventory System as a critical need for the Lincoln area. Lincoln Public Works has acquired the Carte'Graph integrated asset management system that has integrated GIS capabilities and could be expanded to support community-wide asset inventory, work management capabilities, and GASB 34 accounting.

(4) Formalize a process for Workflow Management – Workshop participants identified a need to develop a more formal process for workflow re-engineering to improve both inter-departmental and intra-departmental processes. Excellent software tools are available such as “Visio Enterprise” and NovaLIS Parcel Editor for improving operational workflows.

- (5) **Improve GIS / CAD Integration** – By improving workflows and utilizing a common geodatabase, CAD design files can be more easily integrated into a common spatial data structure. Through the use of data standards and layer definition GIS and CAD data can be easily interchanged.
- (6) **Establish a GIS training program for continuing education.** A program should be developed to provide authorized training for GIS products and related computer technology. A training program about the availability of federal, state, and local GIS databases should also be created. Special emphasis should be placed on developing a reoccurring GIS educational plan for local elected officials and decision makers.
- 5) An incremental GIS implementation philosophy of creating “small win” GIS applications should be pursued. Applications with revenue enhancement potential should be evaluated for early implementation. Workshop participants designated the following list of applications as high priority applications. A detailed evaluation of each application should be made to determine the cost and benefits of the application prior to implementation.

Land Records Management:

- BRAD – Basic Records Access Database
- Integrated Parcel Identifier and Address Update
- Integration of the Geodetic Database
- Intranet and internet public access to the Parcel Database
- Expand the Zoning Administration and Planning System
- One-Stop Subdivision Tracking System
- GIS Integration to Building Permits

Infrastructure Management:

- Fiber Optic System Modeling
- Infrastructure Inventory
- CAD Integration
- Transportation and Traffic Data Management System
- Customer complaints / customer service
- Field Crew Data Access
- GASB 34 Compliance
- Right-of-way and Easement Mapping
- Hydrant Information System

Public Safety and Permitting:

- FIT – Floodplain Information Tracking
- GIS-enabled 911
- Automated Vehicle Tracking System
- Building Hazard Information and Simulation System
- Terrain Mapping and Topography for Public Safety
- Emergency Dispatch and Response

Administrative:

- GOLD - Internet Index & Viewer for Shared Geographic Data
- Economic Development Application
- Geo-demographic Marketing for Public Facilities and Programs
- Facility Location and Usage Analysis
- Web-based Citizen Service Request System

GIS Support:

- Spatial Data Warehouse and Web Portal
- Address Framework Database
- Jurisdictional Boundary Management System

Kent, I hope these recommendations help in establishing a true enterprise GIS capability for the City of Lincoln and Lancaster County. We also hope that the cooperation and communication we witnessed during the workshop will enable all participants to begin steps toward the continued development of a community-wide GIS program with broad participation. City and County departments currently have the opportunity to enhance and expand their operational capabilities with GIS technology; this can be further extended with web technology to improve GIS access to many more users. Please thank Jeff McReynolds and the other LES staff for all their help hosting the workshop

If ESRI can provide any further assistance to you, please let us know. We have really enjoyed being partners in your success. Thank you for the opportunity.

Sincerely,

Environmental Systems Research Institute, Inc.

Stephen Kinzy
Regional Manager

Joe Eckmann
Account Manager

Enclosure: GIS Visioning Workshop Report

Introduction

On October 2 and 3, 2003, City of Lincoln, Lancaster County and the Lincoln Electric System conducted a Geographic Information System (GIS) Visioning Workshop at the Lincoln Electric System offices in Lincoln. Recognizing that the benefits of GIS extend far beyond one department, City of Lincoln and Lancaster County sponsored the workshop in hopes that other local government departments in the community could utilize and extend existing GIS capabilities. When used as a core enterprise technology, GIS can have a profound impact on local government operations. The objective of the GIS Visioning Workshop was to develop a consensus between City, County and LES departments on the future application of GIS technology within the community. To help the group achieve their objective, Steve Kinzy and Joe Eckmann from ESRI facilitated the following agenda using short overview presentations and a series of consensus-building Nominal Group Techniques (NGT). The following individuals representing their respective departments participated in the workshop:

| <u>Name</u> | <u>Agency</u> |
|-----------------|---|
| Terry Bundy | Lincoln Electric System |
| Dan Pudenz | Lincoln Electric System |
| Jeff McReynolds | Lincoln Electric System |
| Don Thomas | County Engineer's Office |
| Larry Worrell | County Engineer's Office |
| Jim Langtry | County Engineer's Office |
| Mike Merwick | Building and Safety |
| Wilma McCamley | Building and Safety |
| Terry Kathe | Building and Safety |
| Tom Casady | Police Department |
| Marvin Krout | Planning |
| Kent Morgan | Planning |
| Logan Christy | Planning |
| Kerry Eagan | County Commissioners |
| Paul Zillig | Lower Platte South Natural Resources District |
| Brad Thomas | Lower Platte South Natural Resources District |
| Doug Thomas | Information Systems |
| Jim Anderson | Information Systems |
| Don Herz | Finance |
| Rob Ogden | County Assessor |
| Michelle Slack | County Assessor |
| Erik Hubl | County Assessor |
| Allan Abbott | Public Works & Utilities |
| Roger Figard | Public Works & Utilities |
| Tim Pratt | Public Works & Utilities |

GIS Visioning Workshop Agenda October 2-3 2003

Day One Welcome & Introductions

Kent Morgan, Assistant Director of Planning for the City of Lincoln, welcomed the group and introduced the opening presentations by Larry Zink, GIS Coordinator for the State of Nebraska..



Larry Zink
Nebraska GIS Coordinator



Larry Zink opened the workshop by congratulating the City, County and LES on their past achievements with GIS. He indicated that GIS in Lincoln had started as a small group of data developers/high-end users and had moved from a primary focus on data development to developing applications. He also indicated that the City, County and LES had always concentrated on data quality, the participation of multiple agencies, and good coordination. Larry noted that the departments had found value in the use of GIS as a powerful public information tool for communication and analysis. He also commended the GIS participants on their willingness to assist others with the technology.



Larry said that the challenge over the next few years was to transform departmentally-based GIS solutions into a true enterprise system with many more users and applications. He envisioned opportunities for the broad use of web technology that would meet the increasing expectations of Lincoln citizens and the business community. He also saw opportunities through the use of GIS for improved local, state, and federal coordination.

Larry indicated that an enterprise system would require a high-speed network, central data servers, and development of good data maintenance strategies. He also thought that it was essential to continue to add city and county offices as well as some critical applications such as E-911. He stated that the critical requirement for enterprise GIS implementation would be the need for more coordination/collaboration resources:

“You have accomplished much through early coordination and collaboration — don’t forget to plan for this critical ingredient as you envision the future”

Larry Zink



In addition to the introductions, participants were asked to indicate what they would like to accomplish through the workshop. This information was recorded (see below) to be used as a guide to help meet the group's expectations.

Workshop Expectations

- Improve data integration
- Eliminate duplication
- Better use/cooperation
- How to better serve GIS community
- Technology strategy for integration
- Plan to improve EGIS
- More accessibility of GIS to public
- Re-evaluate process, financing
- GIS education
- Integration with ERP system
- GIS for supporting economic development
- Understanding of how GIS is being used, how it could be used in future
- Timeliness of moving forward
- Set a vision for future
- Get everyone together – roadmap
- Learn and listen
- Learn about ESRI's direction
- Understand each other's needs
- New ideas, better access to GIS data
- Re-invigorate cross departmental cooperation
- Better understand data sharing between GIS and CAD data, GIS used in C.I.P.



Presentation—GIS Overview: The Power of Enterprise GIS

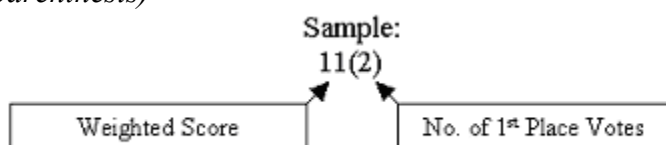
An overview presentation was presented to give everyone a common understanding of GIS and its power to impact the organization. The CAGIS (Cincinnati Area Geographic Information System) Consortium in Cincinnati was used as a case-study example of a multi-department, enterprise GIS.

A group exercise was conducted around the following nominal group question to identify and rank a list of primary GIS requirements for the workshop participants.

Nominal Group Question:

What are the four most important GIS application requirements for your department?

Ranking of Responses: (total weighted points in bold and the number of first place votes parenthesis)



1. GIS Master Plan – **56(10)**
2. Formal City/County GIS Authority – **40(7)**
3. Integrated workflow management – **27(0)**
4. Better job of educating public officials on GIS – **25(1)**
5. (TIE) Infrastructure inventory – **12(3)**
6. (TIE) Accurate and timely PIN & addresses – **12(3)**
7. Data development/maintenance/organization – **11(2)**
8. (TIE) CAD integration from design process – **6(0)**
9. (TIE) Better departmental communication (user groups) – **6(0)**
10. Establish training program – **4(0)**
11. Public access to data - **3**
12. Community outreach of GIS - **3**
13. Data security and integrity - **3**
14. Improve workflow processes (deed-to-map time) - **3**
15. Data for economic development - **3**
16. Field-based data access & entry - **3**
17. GIS access everywhere in real-time - **2**
18. Partnership with private sector - **2**
19. More horses! (Resources, time, & accountability) - **2**
20. Digital submission of plats - **2**
21. Increase mobile GIS availability - **1**

22. Data and application integration - 1
23. Central address database
24. Access to parcel DB
25. Landbase maps for developing areas
26. Geodetic base
27. Tie phone numbers to a location
28. Technology enhancement of 911
29. Contour maps
30. Update ortho/aerial photography
31. Maintaining and improving internet GIS
32. Maintaining records and permits
33. Up-to-date data for valuation analysis (visualization)
34. Avoid duplication
35. Flood plain maps (updated)
36. Benefits exceed costs (R.O.I.)
37. Zoning maps
38. Integration of permitting and property systems
39. Assess infrastructure values for GASB34
40. More stakeholders
41. Represent facilities through database records (cost, age, etc.)
42. AVL coordination
43. Internet access to public/visitor information with GIS
44. Improved cartography training
45. Temporal GIS data
46. Better understanding of GIS technological evolution/direction



Lunch

City of Lincoln, Lancaster County, LES and LPS-NRD GIS Application and Database Presentations

Kent Morgan, Assistant Director of Planning for the City of Lincoln, began the presentations with a background presentation about the history and capabilities of the City and the County's existing capability since the 1990s. He discussed the challenges that the original departments (County Engineer; Public Works and Utilities; County Assessor; Information Service; and City/County Planning) had faced to develop the original databases and applications, and how they had overcome the problems by establishing good communications and trust between the departments. Kent reviewed existing hardware and software capabilities and the primary database development activities (GPS Control Points, Street Center Line File, Digital Aerials, etc.).

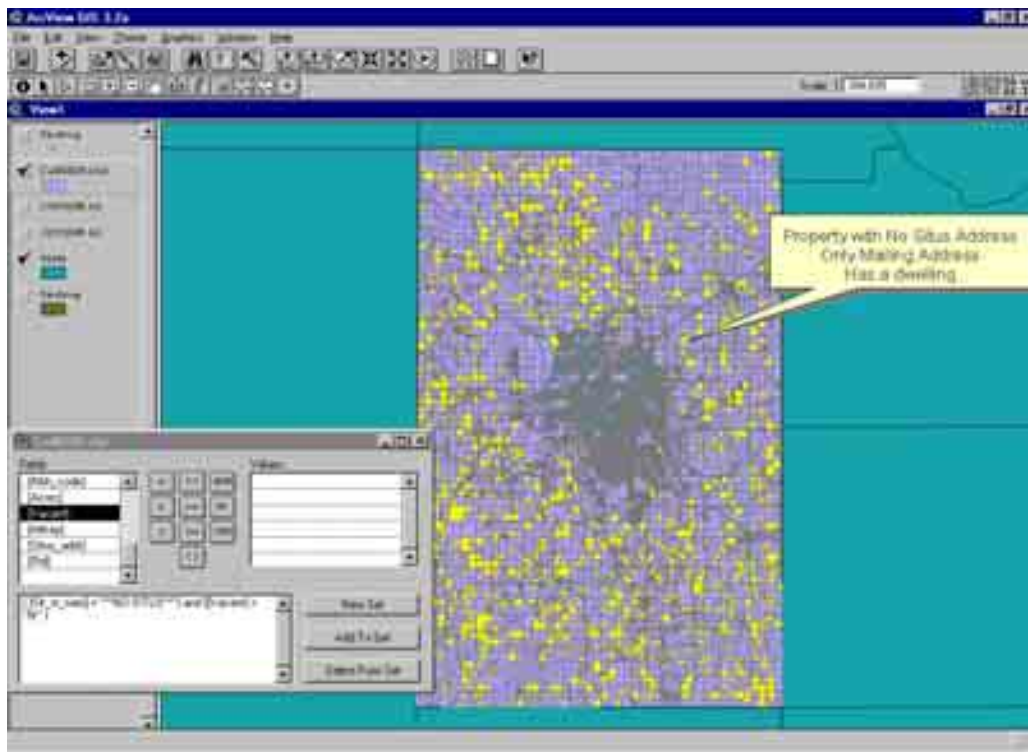


Jim Langtry with the County Engineer's Office described their efforts to create and maintain a COGO accurate base map for the county.





Erik Hubl with the County Assessor's Office discussed the work they had done to improve and maintain the property base with COGO improved geodetic control and their Height Modernization Effort (HME). He also described their derivative maps and their quality control data scrubbing procedures. Some of their most successful applications have been bringing GIS to the desktop within the department, appraisal applications, and web deployment of their property maps.



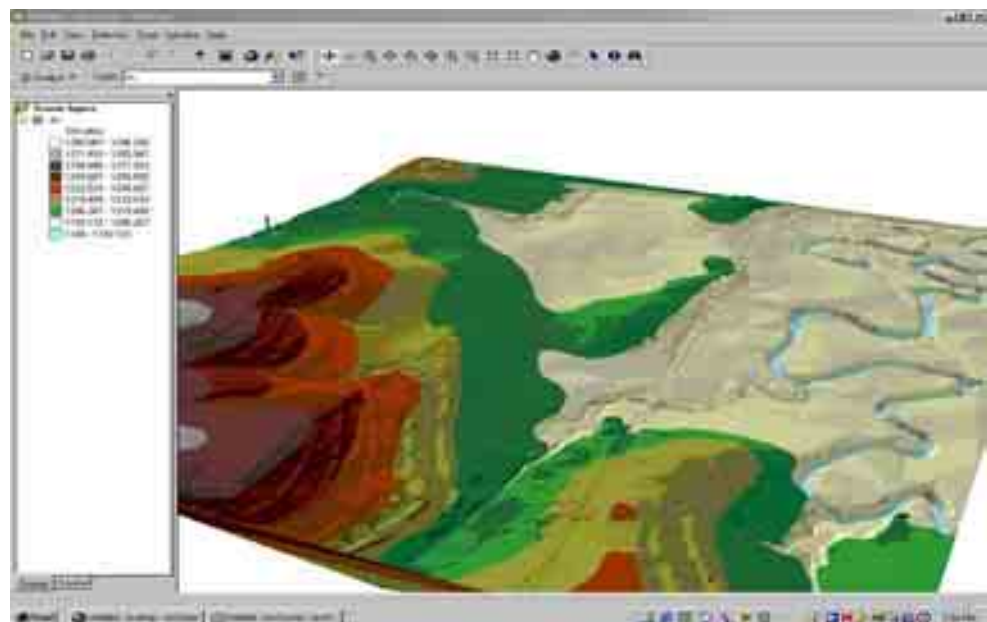


Lyman Taylor - Using ArcView while talking to a customer

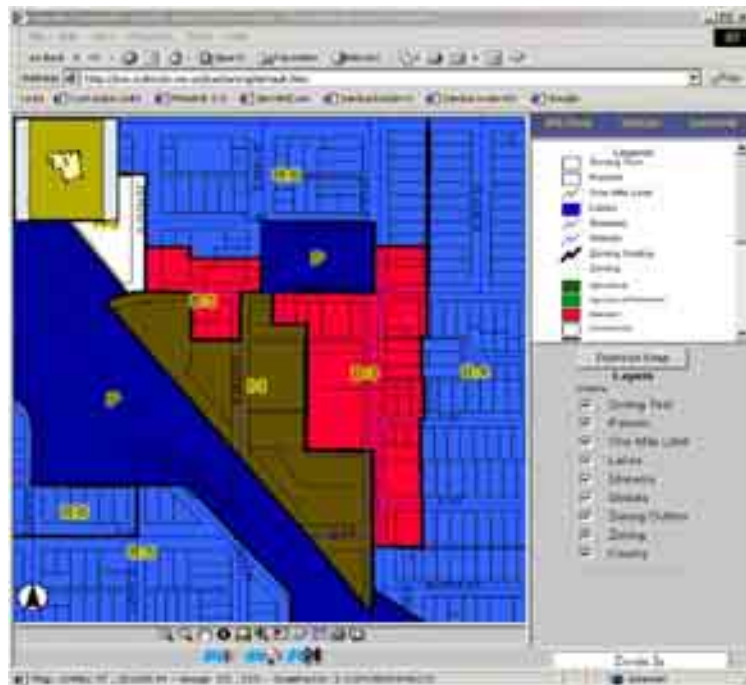




Tim Pratt with the City of Lincoln Public Works and Utilities described their GIS initiatives with their infrastructure databases for water, wastewater, storm, sewer and transportation records. They are developing applications for capital improvements and asset management. They are also responsible for flood control data.



Doug Thomas with Information Systems described the City / County computer hardware and network infrastructure being used to support GIS. He also discussed their support of a variety of internet mapping applications for Assessor Property Information, Zoning, Flood Plain Management, Police, Noxious Weed Control and Voting Precincts.





Jeff McReynolds with the Lincoln Electric System presented a number of GIS applications being used at LES including: Distribution and Transmission Easement Corridor Mapping; Facility Management for Distribution Facilities; Preliminary Siting Studies for LES Property; Customer Payment Mapping; and Viewshed Analysis. Jeff indicated that these applications and many others were having a very positive impact on LES customer service and improved staff productivity.

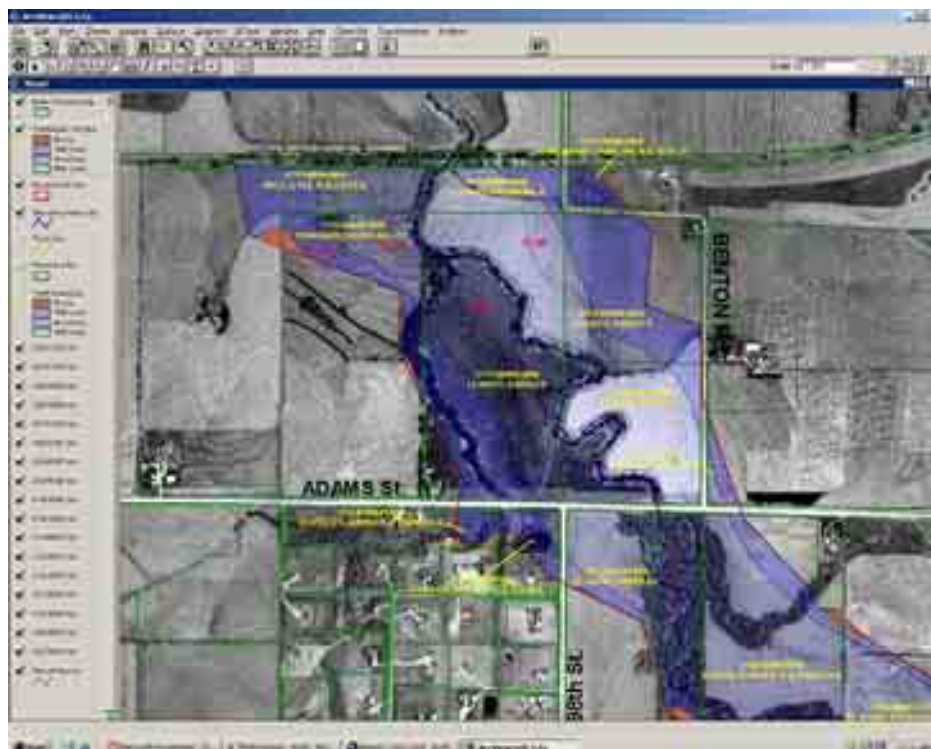


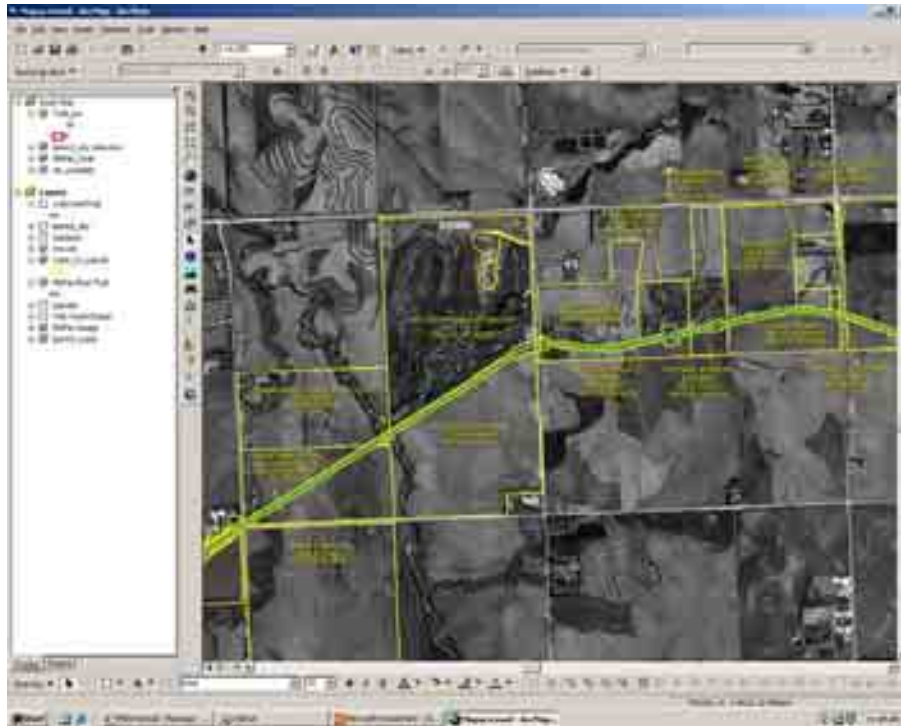
Terry Kathe with Building and Safety explained that their department is the enforcement agency for: Lincoln and Lancaster County zoning, street addresses, construction codes, fire prevention codes, minimum housing codes and the City of Lincoln 3-mile jurisdictional boundary. They utilize GIS to create and designate inspection districts for all of their division inspectors and create layers in order to help enforce their different codes.



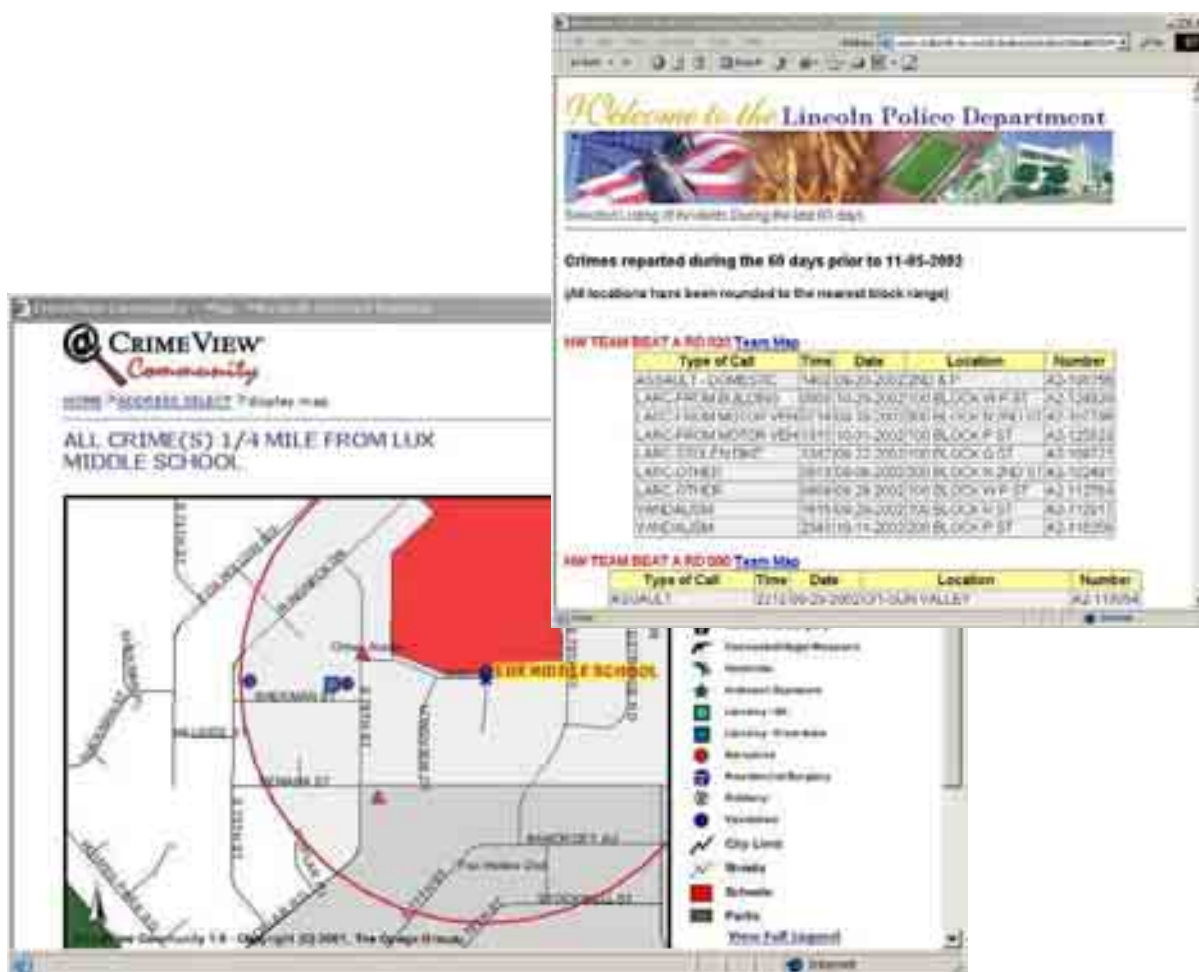
Paul Zillig and Brad Thomas with the Lower Platte South Natural Resources District explained that they are using GIS for a ground water management plan, conservation easements, flood plain mapping and recreational trails. By assembling data from other departments, they have been able to add their own data to create projects information for the NRD.







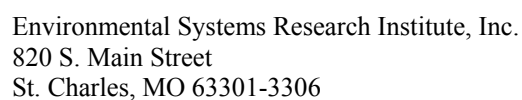
Tom Casady, Chief of Police with the Lincoln Police Department described their extensive use of GIS within the department and how it has transformed their operations. They analyze dispatch records, incident reports, gang intelligence contacts, registered sex offenders, and parolees. Their primary applications are tactical information for officers, strategic information for management, and public information. Their GIS web application has been very successful with over 80,000 hits monthly.

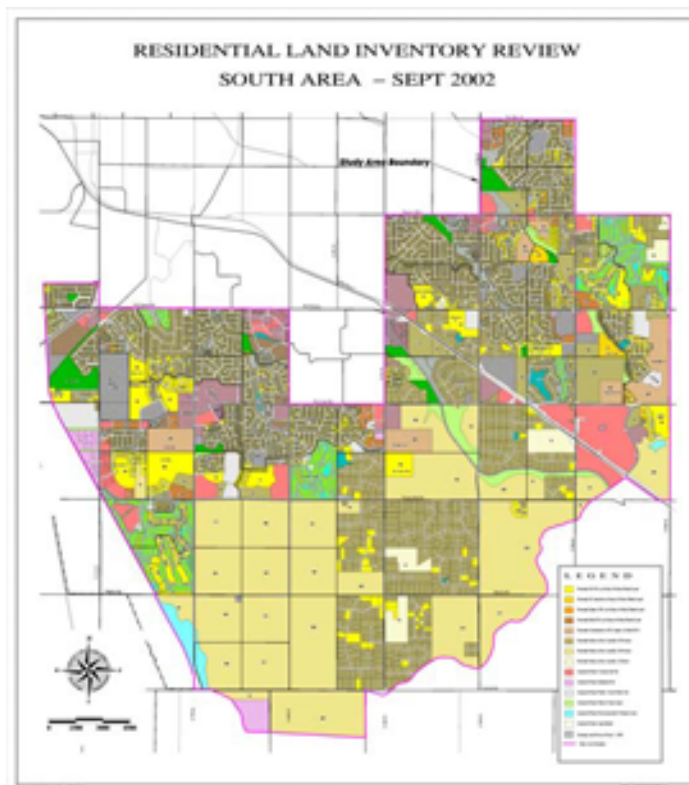




Kent Morgan, Assistant Director of Planning for the City of Lincoln, also presented a few of the many the GIS projects that had been undertaken by the Planning Department including development of their Comprehensive Plan, Land Use Inventory, Floor Area Studies and Building Footprints, Residential Development Inventory, Street Centerline, Land Base Maintenance, Transportation Planning Demand Base, Capital Improvements Programming, Addressing, Sub-Area Planning, Acreage Analysis, Planning Application Mapping, Public Notification, Natural Resource, Flood Plain, Wetlands, and Topographic Relief Analysis. In addition to these projects the department is actively involved in web-based GIS use of zoning data and the development of a Planning Administration System.







City of Lincoln and Lancaster County Vision Statement

At the end of the first day of the workshop, a homework assignment was given. Each participant was asked to develop a Vision Statement for the City of Lincoln and Lancaster County GIS project.

Day Two Recap of Day One

Joe Eckmann, ESRI Account Manager for Nebraska, conducted a recap of the first day's activities.

Small Group Discussion—Vision Statement for the City of Lincoln and Lancaster County.

Participants were asked to suggest a vision statement for the GIS project. Their responses are listed below. During the remainder of the day, they voted on which statement they liked the best, and their votes are indicated in parenthesis.



City of Lincoln and Lancaster County GIS Vision Statements:

Ranking of Responses: (total points in parenthesis)

- **Connecting more than the dots (8)**
- GIS: Read between the layers (3)
- GIS data connections (1)
- The City/County has a GIS that continues to improve our work product by providing information that is accessible, easily distributed, and fully integrated (1)

- Public service with innovation **(1)**
- Visualizing our future: An enterprise of collaboration **(1)**
- GIS: The big picture **(1)**
- GIS: A window on the community
- GIS: Serving our community's future through intelligent mapping today
- To enable strategic & tactical knowledge representations through the collaborative efforts of geospatial information holders
- Develop & maintain a geographic information system for Lincoln & Lancaster County that provides all necessary information to the public
- Providing the facts to enable sound decision-making
- Provide cost-effective geo-based functionality to allow customers to maximize their decision-making capabilities
- GIS: Evolution to better community service through innovative mapping
- Creating new worlds
- Creating new worlds through exchange
- Creating new worlds of communication
- Shared worlds, shared results
- Explore, create, excel
- Bringing focus
- Communication begins here
- New worlds begin here
- Opening new worlds
- The tools, the people, the results
- Dream it, do it
- One community, many benefits
- A common effort producing uncommon solutions
- Information is our resource, success is our product



Presentation—GIS Application and Database Design Process: A Focus on Results

This presentation provided an overview of GIS application and database design with emphasis on the “Big Three” database components:

1. Land-Structure-Occupancy (LSO) Database
2. Networks and Right-of-Way Database
3. Geographic Information System Linkages

The presentation included a discussion of: geographic feature requirements, identification of geographic keys, and attribute database linkage. GIS applications that generate significant results and R-O-I were also discussed.



Small Group Sessions—Application Design

To capitalize on the workshop discussion to this point, the participants were divided into four teams based on their functional responsibilities and knowledge: Land Records, Infrastructure Management, Permitting, and Administration. Each team was given the task of selecting a critical GIS application that could build on the Lincoln-Lancaster County/LES database and then to develop a conceptual GIS system design.



Presentation—GIS Implementation: It's a Journey, not a Destination

Prior to the groups beginning their work, a presentation was given on GIS implementation strategies. Emphasis was placed on “small win strategies” and incremental system development.

Lunch

Group Presentations

Each group was given approximately two hours to develop their designs. They were asked to design a GIS application that could be built on a majority of existing Lincoln-Lancaster County/LES data and could be completed in six months. Once the designs were completed, each team was asked to make a short presentation about their application design and recommended implementation strategy.

Small Win – Administrative Application # 1: **“GOLD - an Internet Index and Viewer for our shared geographic data”**



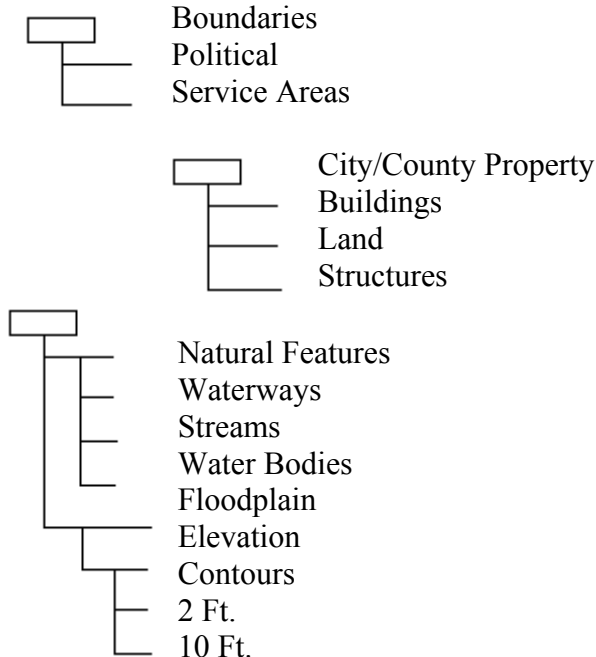
PROBLEM:

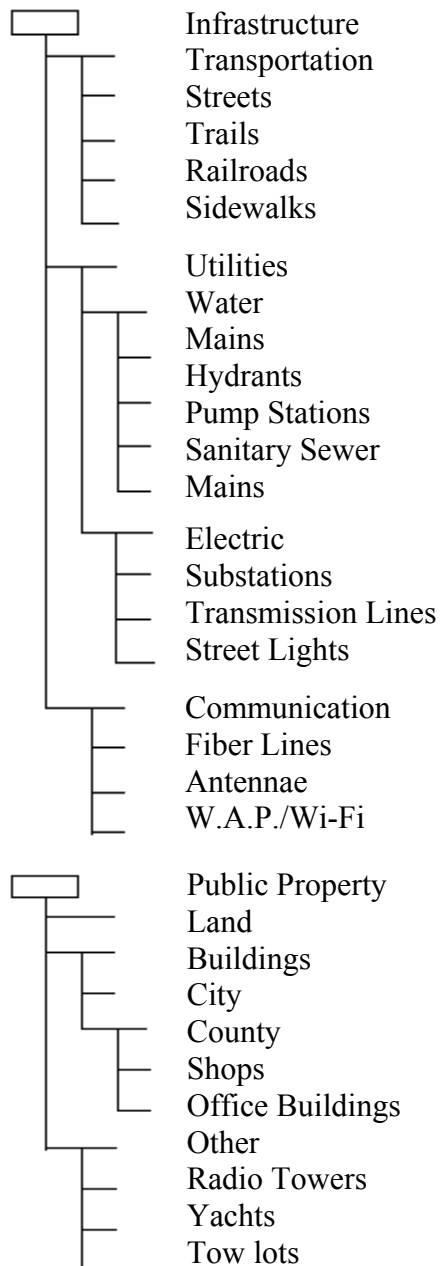
- Lots of layers, difficult to navigate
 - Cryptic file names
 - Must have network connection and GIS server access
 - Directory structure can be overwhelming
 - Limited preview capability
- Limited access for non-GIS personnel & general public
 - IMS applications contain few layers
 - Few people have the expertise or license for GIS software
 - Many PCs cannot handle software and file sizes

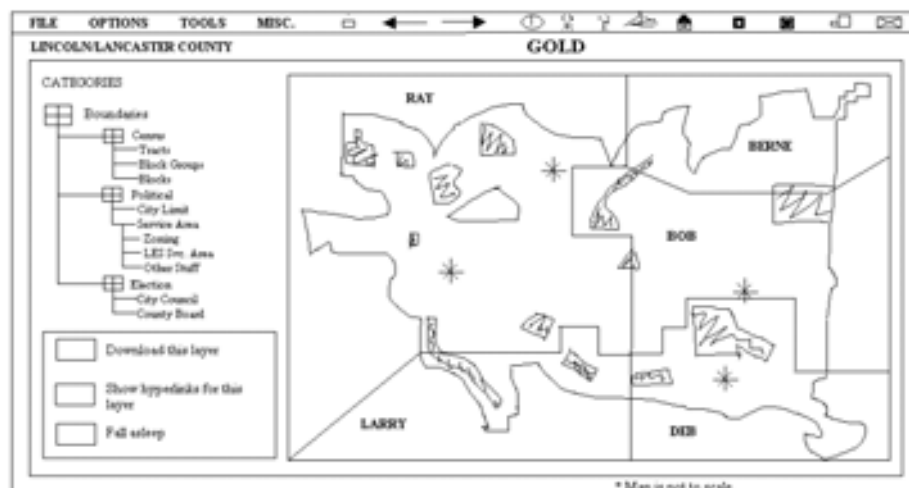
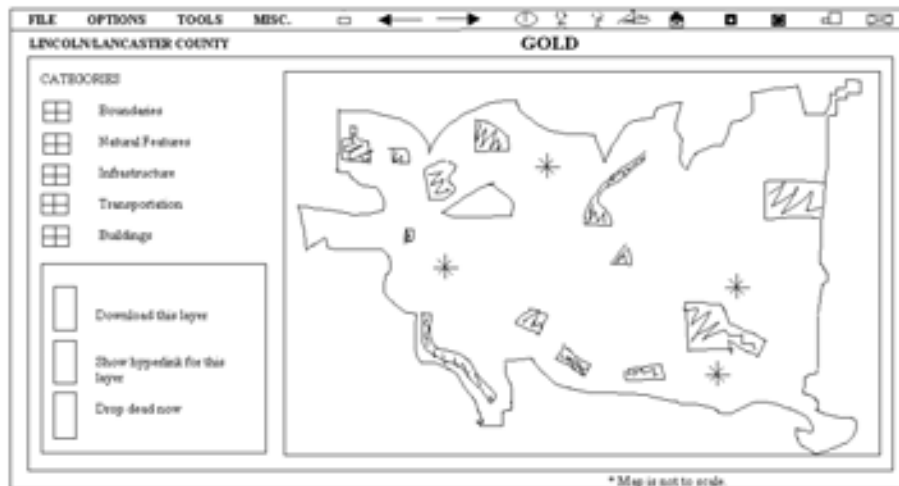
GOLD:

- A basic internet application that serves as an:
 - Index and viewer for our shared geographic data
 - Interactive map for employees and citizens
 - Download/link portal to the layers
- Three tiers of users:
 - Basic City/County employees
 - City/County GIS “geeks”
 - General public

MAJOR CATEGORIES:









Small Win – Land Records Application # 2:
“BRAD – Basic Records Access Database”



Application Name

BRAD – Basic Records Access Database

Short Description

Integrate landbase and parcelbase data layers for public access

Objective

Goal is to link:

- Field notes
- Deeds
- Sectional plat maps in .pdf format (initially)
- Survey notes

Map Data Elements

- Parcel polygon (Primary)
- Subdivision polygon (Secondary)
- Address points (Secondary)
- Landbase polygon (Primary)

Geographic Keys

- Address
- PID
- Subdivision name

Attribute Data Elements

- Deed numbers
- Field note ID
- Owner name
- Book and Page

System Outputs

- Web-based application
- Plats in .pdf format (initially)
- Field note images
- Survey record images
- Tie-card images (survey marker descriptions)

Application Benefits

- Web-based public access to records
- Benefits surveyors, title companies, insurance companies, appraisers, realtors, and general public
- Reduce foot traffic and phone inquiries

Short-Term Priorities

- 1) Scan – convert – link
 - Field notes
 - Sectional plats
 - Create IT link for city sectionals
 - Survey records
- 2) Modify web service or application

Long-Term Priorities

- 1) Direct link to landbase
- 2) Establish workflow process
- 3) Unified landbase

Notes:

Quick Win – 6 months

“Field notes” are identified as an important data item that needs to link to landbase

Step 1: Scan field notes
 Convert W/P to .pdf image

Subdivision plates

ITs

- Link resides in landbase
- County area completed easier
- City ITs may be easier than perceived
- Link to .pdf map of landbase sectionals
 - Ability to print-out portions of map



Small Win – Permitting Application # 3:
” F.I.T. - Floodplain Information Tracking”



PROBLEM:

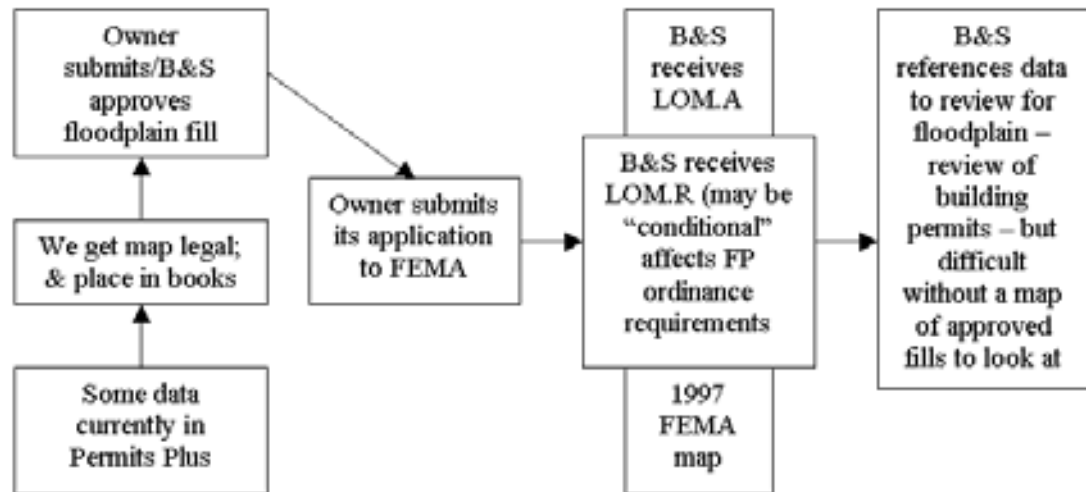
Accessing data of

- (a) Fill-in floodplain
- (b) LOM.R Letter of map – revisions parcel (removing a parcel from F.P. - by fill)
- (c) LOM.A Letter of mapping – amendment (removing parcel from F.P. – by natural)

- Address is hard to determine on a parcel without a building or frontage or a large parcel with a lot of frontage
- Documentation is in paper form without addresses

Solution is F.I.T.
Floodplain
Information
Tracking

| Map Data Elements | Geographic Keys | Attribute Data Elements |
|--|------------------------------|---|
| Polygon | PID # Floodplain Permit # | Floodplain Permit # Floodplain Certification LOM.A LOM.R CLOM.R |
| <u>Benefit:</u> Lower community rating Lower insurance rates for community Lower insurance for parcel | | |



B&S Should:

- Create LOM.A and LOM.R fields in F.P. fill database
- Map approved fills (new polygons) after permits are approved (use 1997 FEMA maps as starting place; go back to approvals since 1997) and should map approved LOM.As that do not come through the local F.P. fill process
- Maps should show: 1) Approved fills with/without LOM.R, 2) LOM.A's
- Create tables of land areas and percent filled for each reach of Salt Creek



Small Win – Infrastructure Application # 4:
”Fiber Optic System Modeling”



Purpose/Objective:

- Coordinate efforts of various agencies
- Foster joint planning and facility use

Outputs:

- Representation of existing facilities
 - Physical attributes (OH, UG, MM, SM count, conduit types and conditions)
 - Location
 - Availability/uses
- Planned/anticipated additions
 - One year
 - Six year

Benefits

- Limit construction disruption
- Identify efficient redundancy possibilities
- Reduce unintended, uninformed duplication

ST Priorities

- Database design
- Define user needs
- Convert data
- Outline security

- Establish a team

LT Priorities

- Investigate private facilities
- Establish maintenance process
- Expand applications

CELEBRATE!



Nominal Group Exercise on GIS Implementation Priorities

On the basis of the information provided by the application team, a nominal group exercise was conducted to determine overall GIS implementation priorities for the City of Lincoln and Lancaster County.



Nominal Group Question:

What are the three most important implementation priorities for the City of Lincoln and Lancaster County participants?

Ranking of Responses: *(total weighted points in parenthesis)*

1. Form a management committee to establish goals and objectives **(35)**
2. Establish an enterprise GIS plan **(23)**
3. Establish a unified landbase **(20)**
4. GIS educational plan for decision makers (a.k.a. marketing annual report) **(13)**
5. Develop a realistic public/private funding strategy **(5)**
6. Establish comprehensive workflow re-engineering process **(5)**
7. Mechanism for digital plat submission **(3)**
8. Establish a directory of geodata **(3)**
9. Organizational responsibility for data and data sharing **(2)**
10. Focus on public service **(2)**
11. Continue to establish and enforce an addressing standard **(2)**
12. Keep the user community whole **(1)**
13. Establish central data storage

14. GIS-enable E911
15. Timely data maintenance
16. Establish a technology inventory
17. Establish a program for updating aerial photography
18. Improve communication and coordination
19. Develop metadata
20. Establish a temporal data strategy
21. Improve CAD/design integration and/or interoperability
22. Educational outreach to schools and community



Wrap-up Discussion

A final group discussion was held to evaluate the results of the workshop and to arrive at a consensus for the next set of GIS actions within the community. The major discussion focused on development of a plan that would outline the necessary steps required to implement an enterprise GIS in the City of Lincoln and Lancaster County to facilitate a more formal structure for data sharing and to provide a wider range of data and application products.

While tremendous progress has been made by individual departments, it was suggested that due to evolving technology there was now a need for a formal GIS structure and staff to help manage shared geodatabases and application resources. Many of the participants expressed the need for workshop groups to continue to meet to help bridge the gap between administrative requirements and technical capabilities.



At the end of the discussion, each workshop participant was asked if the workshop had been helpful in getting a better understanding of the value of GIS technology for the community. The group collectively agreed that the workshop had been a success and were anxious to begin development of a true enterprise GIS program for the City of Lincoln and Lancaster County.

